

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112462 A1

(51) International Patent Classification:	A01G 1/04,	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YA, ZM, ZW.
(21) International Application Number:	PCT/HU2004/000063	
(22) International Filing Date:	23 June 2004 (23.06.2004)	
(25) Filing Language:	English	(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
(26) Publication Language:	English	
(30) Priority Data:	P0301909 23 June 2003 (23.06.2003) HU	



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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

Published:

— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/112462 A1 (54) Title: SOLID CARRIER BASED MICROBIAL INOCULANTS AND METHOD FOR MANUFACTURING OF SUCH PRODUCT

(57) Abstract: The scope of invention is solid carrier-based microbial inoculants advantageously applied for natural phosphorous supply of plant, biological control of soil born plant pathogens, biological degradation of organic contaminants, soil life and fertility improvement which solid carrier containing phosphorus, made of animal bone charcoal, and having grain size advantageously between 0.001 mm and 10 mm, pore size between 10 and 60.000 nanometer, macro porous structured, the specific area is between 1 and 500 m²/g, and the external and/or internal surface and/or internal pores are biologically active colonized with soil microorganisms. Furthermore the scope is method for manufacturing and application of solid carrier-based microbial inoculants which carrier is produced from animal bone by carbonisation process over 300 degrees Celsius core temperature, followed by cooling to below 50 degrees Celsius core temperature, then the microbial inoculants - produced by conventional liquid phase fermentation - are introduced on and in the phosphorous content solid carrier external, internal surfaces and internal pores, advantageously by solid state fermentation process resulting microbiological colonization, then the water content of the microbial product is decreased to achieve long time storage for preserving the viability of the microorganisms; and before field introduction the microorganisms are activated by water and/or nutrient additives.